



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/601,397 | 06/23/2003 | Ambarish Chaudhari | JUL-002 | 8029 |
| 7590 | 02/23/2005 | | EXAMINER | |
| William L. Botjer PO Box 478 Center Moriches, NY 11934 | | | KIM, WESLEY LEO | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2683 | |

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

| | | |
|--------------|-----------------|------------------|
| | Application No. | Applicant(s) |
| | 10/601,397 | CHAUDHARI ET AL. |
| Examiner | Art Unit | |
| Wesley L Kim | 2683 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 18 February 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-23 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-16 and 23 is/are rejected.
- 7) Claim(s) 17-22 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 23 June 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Allowable Subject Matter

1. Claim 17 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
 - The prior art of record fails to disclose a combination of elements (or steps) in a system for a system suitable for providing at least one service to a plurality of mobile users, including a context server comprising a means for collecting status information about the user, user devices, network elements, and information about applications enabling services
2. Claim 18 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
 - The prior art of record fails to disclose a combination of elements (or steps) in a system for a system suitable for providing at least one service to a plurality of mobile users, including a meta directory comprising a service directory, a policy repository, a rights repository, a business rules repository, a device profile database, an application file, and a subscriber profile.
3. Claim 19 and 20 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

- The prior art of record fails to disclose a combination of elements (or steps) in a system for a system suitable for providing at least one service to a plurality of mobile users, including an intermediation gateway comprising a context engine, a policy component, an application handler, a policy enforcement engine, and a metering record generator.
4. Claim 21 and 22 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- The prior art of record fails to disclose a combination of elements (or steps) in a system for a system suitable for providing at least one service to a plurality of mobile users, including a meta controller comprising an execution engine (wherein the execution engine authenticates the user requesting for a service), a network resource control module, an application control module, and a system resource control module.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1,2,6,7,10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wake et al (U.S. Pub. 2004/0043753A1) in view of Wang (U.S. Pub. 2004/0203630A1).

Regarding claim 1, Wake et al (Wake) discloses a method for providing at least one service to a plurality of mobile users (Par.8;3-5), the service being provided via a network infrastructure owned by a mobile service provider (Fig.2;40, it is inherent that a carrier network is a mobile service provider), the service being provided by at least one third party partnering the mobile service provider (Fig.2;30,36), the method comprising (the steps of: a) the mobile service provider creating service objects using core network information (Fig.3;66,64,68,62 are service objects, i.e. menus, Par.17;10-24); b) the third party creating services using at least one of the created service objects (Par.28;5-8); c) the mobile service provider enabling the provision of the created service to the mobile user via the network infrastructure (Par.26;1-5); d) the mobile user subscribing to a service being provided via the network infrastructure (Par.24;14-18); however Wake does not expressly disclose e) the mobile user customizing the subscribed service.

On the other hand Wang discloses of a user customizing a sports listing to display just baseball and golf (Par.40;1-2 to one of ordinary skill in the art it is obvious that a user subscribed to a listing of sports has customized it such that only his favorite sports, i.e. baseball and golf, are listed). It would have been obvious to one of ordinary skill in the art at the time the invention was made to

combine Wake with Wang to obtain a method for providing services to user(s) so that the users may selectively download and execute any services they desire.

Regarding claim 2, the combination as discussed above discloses all the limitations as recited in claim 1, and Wang further discloses a centralized subscriber database stores personal and preferential information of the users of the service provider (Par.20;1-8 and Par.40;1-5, one of ordinary skill in the art would find it obvious to use the user database information to create service objects geared towards the current user).

Wake also discloses an end user of a wireless device with the capability to selectively download and execute software or services across a wireless network from a third party, however a billing server will then bill the user for the services (Par.19, to one of ordinary skill in the art it is obvious that service object is created with information related to business relationships between the mobile service provider (MSP) and the third party, whenever the user selects software or services for download from the service object there is some business relationship between the MSP and the third party which bills the user).

Regarding using information related to capabilities of the network infrastructure of creating the service objects, it is obvious that once a wireless device bridges a connection with the wireless network (Par.17;15-16) the capabilities of the network may not be exceeded to create anything, including the service objects.

He further discloses a wireless device contacting a application download server which gives the user the ability to create a menu for display on the wireless device so the end-user can learn of the available services and select one as desired (Par.17;17-24, to one of ordinary skill in the art, it is obvious that there exists applications which allow the user to view and implement the services on the network infrastructure).

Regarding claim 6, the combination as discussed above discloses all the limitations as recited in claim 1, however the combination does not expressly disclose the step of third party creating services using at least one of the created service objects includes attaching a charging model with the service object, however Wake does disclose that a user must pay for access to data or download of applications from the service objects in Fig.3 (Par.28, it is obvious to one of ordinary skill in the art that there is a price or charging model attached to the service objects).

Regarding claim 7, the combination as discussed above discloses all the limitations as recited in claim 2, however the combination does not expressly disclose the remaining limitations of claim 7.

However, to one of ordinary skill in the art it is inherent that using the information related to capabilities of the network infrastructure for creating service objects (Wake, Fig.3;64,66,68,70) requires (a) defining network elements information including information relating to the capability of network elements; and b) defining the gateway services information including information relating to

the capability of gateway services (if the capabilities of the network elements and gateway services were not defined the system wouldn't be capable of functioning).

Regarding claim 10, the combination as discussed above discloses all the limitations as recited in claim 1, however the combination does not expressly disclose the step of creating services using at least one of the predefined service objects being carried out by the mobile service provider. However, from the inspection of Fig.2 one of ordinary skill in the art would envision the mobile service provider (Fig.2;40,42,44) creating services of the corresponding service object by accessing the appropriate services from the third party applications database (Fig.2,36) and distributing it to the users.

Regarding claim 11, the combination as discussed above discloses all the limitations as recited in claim 1, however the combination does not expressly disclose the step of enabling the provision of the created service to the mobile user comprising the steps of: a) applying network level controls (restraint or limitations) on the service created in accordance with business relationships; b) applying application level controls on the service created in accordance with business relationships; and c) applying system level controls on the system elements participating in service creation and delivery.

Regarding the network level controls, it is inherent that network level controls (i.e. limitations or restrictions of the network) are applied to the services created (Wake, Fig.3;News,Email,Games,etc.) in accordance with business

relationships because the network level controls make sure services created may not exceed certain business relationships already agreed upon (i.e. the business relationship agrees that the network will implement only selective attributes and so the network level controls will make sure that those attributes not in agreement will not be implemented in the service creation);

Regarding the application level controls (i.e. limitations or restrictions of the applications), it is also inherent that application level controls are applied to the services created (Wake, Fig.3;News,Email,Games,etc.) in accordance with business relationships because the services created may not exceed certain business relationships already agreed upon (i.e. the business relationship agrees that a text based news service be provided so the application level controls make sure that a graphical news based service is not provided); and

Regarding applying system level controls on the system elements participating in service creation and delivery the same argument made for the network and application level controls can be made. It is inherent that system level controls on the system elements be applied so that services provided and delivered will not exceed the capabilities of the system elements.

Regarding claim 12, the combination as discussed above discloses all the limitations as recited in claim 1, and Wake further discloses b) the mobile service provider providing to the user a list of available services (Fig.3); c) the user selecting from the list, at least one service; and d) the user subscribing to

the selected service (Par.28;11-13, the user selects at least one service from the list, therefore subscribes to the selected service, but will be billed for it);

In addition, Wang discloses a) the mobile service provider matching user context information with relevance criteria of services offered (Par.20;1-8 and Par.23;1-4 the users preferences may be stored and then upon determination of the location of the mobile phone, the personalized information may be provided based on location, time of day, and user profile, so to one of ordinary skill in the art it is obvious that the users information is used to match it to relevant services);

Regarding claim 13, the combination as discussed above discloses all the limitations as recited in claim 1, and Wang further discloses a) the user identifying the service parameters to be customized (Par.40;1-2, the user requests sports information but wants to customize it so that it only lists baseball and golf information); and b) the user overwriting the identified service parameters (Par.40;11-14 originally the parameters included all sports but after selecting baseball and golf, the orginal parameters were overwritten so that only baseball and golf is displayed).

2. Claim 3-5 rejected under 35 U.S.C. 103(a) as being unpatentable over Wake et al (U.S. Pub. 2004/0043753A1) in view of Tasic et al (Telecommunications in Modern Satellite, Cable, and Broadcasting Services, 1999. 4th International Conference on Volume:2, 13-15 Oct 1999; Pages 677-680 Vol.2).

Regarding claim 3, Wake discloses all the limitations of claim 1 however he does not expressly disclose the step of creating service objects using core network information based on the Common Information Model (CIM). On the other hand Tasic et al (Tasic) teaches of the Common Information Model as a new standard OO information model in network and system management which would be used to integrate other NSM standards such as SNMP, DMI, and ISO OSI standards (Introduction;Par.1;5-8 and The Interoperability Problem;Par.4;8-19). To one of ordinary skill in the art it would have been obvious to implement the CIM model for managing the system in order to avoid traffic congestions and allow interoperability with existing standards to minimize expenses associated with network use, hence it is obvious to a skilled artisan that when creating the service objects the core network information is based on the common information model.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Wake with Tasic to implement a common information model in a network to avoid traffic congestions and allow interoperability with existing standards to minimize expenses associated with network use.

Regarding claim 4, the combination as discussed above discloses all the limitations of claim 3, and further Wake discloses the step of creating service objects using core network information is implemented by including at least one service capability (Fig.3, a capability being, email, traffic report, weather, etc.).

Regarding claim 5, the combination as discussed above discloses all the limitations of claim 4, and although the combination does not expressly disclose the service capability to include at least one execution flow, Wake discloses that the service capability may be accessed (Par.28;3-5, it is obvious to one of ordinary skill that a user may select a service capability from the menu (62) and there would be at least one execution flow in order to give the user access to the service(s)).

3. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wake et al (U.S. Pub. 2004/0043753A1) and in view of Omata (U.S. Pub. 2002/0007462A1) and Wang (U.S. Pub. 2004/0203630A1).

Regarding claim 8, Wake discloses all the limitations as recited in claim 1, and he further discloses of a user selecting at least one service object (Par.19;3-6, a user may select an application of the service objects as shown in Fig.3), however he does not disclose the remaining limitations as recited in claim 8. On the other hand, Omata teaches of a user being permitted access to a system upon performing an authentication where a user inputs a user name and password into terminal device (Par.4;1-4, to one of ordinary skill in the art it is obvious that once a user is authenticated they have access to service objects or any other services available to the terminal device and in turn enabling a third party to service a service object upon selection).

Regarding configuration of service parameters on the selected service objects on the basis of predefined business relationships existing between the

third party and the mobile service provider Wang teaches a user selecting a sports information service and customize it so that the information provided is related with baseball and golf only (Par.40;1-2 and Par.41;8-11 so it is obvious that this customization is provided on the basis of some predefined business relationship existing between the sports information providing third party and the mobile service provider),

And further, Wang teaches of the system learning the users personal and preferential information so that a database may store and provide the information related to a specific user (Par.20;1-4 and Par.21;1-3 so it is obvious that relevance criteria for the created service on the basis of the shared core network information is being provided).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Wake with Omata and Wang to obtain a method for providing services to user(s) via customized service objects upon authentication of a user for security purposes.

Regarding claim 9, the combination as discussed above discloses all the limitations as recited in claim 8, and Wake further discloses providing value added services in accordance with the predefined business relationship (Par.28;5-13, access to or downloading of any services or programs will be billed so it is obvious to a skilled artisan that a value added service is being provided according to some predefined business relationship between the third party and the mobile service provider), however he does not expressly disclose using the

core network information that is being shared between the mobile service provider and the third party, the shared core network information being defined on the basis of the pre-defined business relationships.

With regards to using the core network information that is being shared between the mobile service provider and the third party, the shared core network information being defined on the basis of the pre-defined business relationships, this is inherent (For Wake to teach of a third party providing service to a mobile terminal served by a mobile service provider (MSP), there is an inherent sharing of network information between the third party and MSP and there is a pre-defined business relationships between the two to allow billing for services).

4. Claims 14 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (U.S. Pub. 2004/0203630A1) in view of Ginzboorg et al (U.S. Patent 6047051).

Regarding claim 14, Wang discloses a system suitable for providing at least one service to a plurality of mobile users (Par.14;1-5), the service being provided via a network infrastructure owned by a mobile service provider (Par.15;14-16), the service being provided by at least one third party partnering the mobile service provider (Par.14;5-8), the system comprising: b) a context server for maintaining information about the system (Par.8;1-6); c) a meta directory for storing the core network information, the core network information being needed for creation and delivery of services (Par.8;1-6 reads on a meta directory. To one of ordinary skill in the art, it would be obvious that the context

server could be a meta-directory, which contains information needed for the creation and provision of services to a user based on location, time, and user profile); d) a service catalog for storing a list of available services, and the relevance criteria corresponding to each service (Par.27;1-7); e) an intermediation gateway for enabling the delivery of services (Fig.1;102, it is inherent that the gateway, i.e. base station, enables delivery of services to the users); however he does not expressly disclose a) a business gateway or f) a meta controller.

On the other hand, Ginzboorg et al (Ginzboorg) discloses a) a business gateway for enabling the provision and modification of core network information by the mobile service provider and the third party (Col.7;13-15); and f) a meta controller for providing a policy based control of the business gateway (Col.5;1-2 the billing system establishes a contract with a third party so the billing system has a policy or contract based control over the gateway), the intermediation gateway (Col.5;19-20 the billing system establishes a contract with a user so the billing system has a policy or contract based control over the base station, i.e. intermediation gateway), the context server, the meta directory, and the service catalog (Col.4;62-67, the billing system has a contract with the users and third party so it is inherent that the billing system has a policy based control, i.e. contract, the other components associated with the delivery of services, i.e. the context server, the meta directory, and the service catalog).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Wang with Ginzboorg to obtain a method for providing services to wireless devices and a method for charging the users for those services.

Regarding claim 23, the combination as discussed above discloses all the limitations as recited in claim 14, and further Wang teaches of a context server (104), i.e. service catalog, identifying subject matter within a content database, i.e. context server, based on the profile of the user (Par.39;2-6, b) means for extracting relevance criteria for all the services stored in the service catalog); and he also teaches of a filtering process which matches up the content corresponding to the user request (Par.39;6-10, c) means for matching user context with relevance criteria for each service), and although he does not expressly teach of extracting user information from a context server, it would be obvious to one of ordinary skill in the art to envision the content extracted from the content server, which is relevant to the users requests, to be considered as user information.

5. Claim 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (U.S. Pub. 2004/0203630A1) and Ginzboorg et al (U.S. Patent 6047051) in further view of Leaf (U.S. Patent 5754772).

Regarding claim 15, Wang and Ginzboorg disclose all the limitations as recited in claim 14, however they do not expressly disclose the business gateway to comprise: a) a read module for reading the core network information stored in

the meta directory, the information being read by the mobile service provider and the third party; and b) a write module for providing core network information that is to be stored in the meta directory, the information being provided by the mobile service provider and the third party. On the other hand Leaf teaches of a gateway client, i.e. gateway, that reads from and writes to a data buffer, i.e. meta directory, (Col.3:15-17, it is inherent that a gateway may have a read/write module, and further, it would be obvious to one of ordinary skill in the art to see that the gateway, located between the third party and the mobile service provider, would have information read from it and information provided to it by the third party and the mobile service provider for writing to the data buffer).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Wang and Ginzboorg with Leaf to obtain a system for providing services to mobile users where the third party and mobile service provider communicate, i.e. read/write data, with each other via a gateway in order to provide fast and reliable services to the user.

6. Claim 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (U.S. Pub. 2004/0203630A1) and Ginzboorg et al (U.S. Patent 6047051) in further view of Adachi (U.S. Patent 6829474 B1).

Regarding claim 16, Wang and Ginzboorg disclose all the limitations as recited in claim 14, however the combination does not expressly disclose the business gateway authenticating the third party for access to information available with the mobile service provider.

On the other hand, Adachi teaches of a terminal requesting that a gateway server (i.e. gateway) authenticate an access request to a control server.

(Col.9:18-23 from Adachi's teaches one of ordinary skill in the art could envision the gateway used as a means for protecting access by a third party to information available with the mobile service provider).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Wang and Ginzboorg with Adachi to obtain a system for providing services to mobile users while guarding against unauthorized access to the mobile service provider by the third party servers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley L Kim whose telephone number is 703-605-4319. The examiner can normally be reached on Monday-Friday 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WLK



WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600